

REMARKS

The application has been reviewed in light of the final Office Action dated February 25, 2005. Claims 1-27 are pending in this application, with claims 1, 18 and 23 being in independent form. The Examiner's allowance of Claims 18-27. By this Amendment, claim 1 has been amended to clarify the claim term "field", although Applicants submit that the meaning of the term "field" should have been apparent from the specification as well as from the claim prior to Amendment thereof. It is submitted that no new matter and no new issues have been introduced by the present Amendment. Claims 1-17 are presented for reconsideration.

Claims 1-17 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 5,950,207 to Mortimore et al. Claims 1-17 were also rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 5,971,923 to Finger.

Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submit that independent claim 1 is patentably distinct from the cited art, for at least the following reasons.

This application relates to communication of both image data and quantitative data, consistent with the DICOM standard. As discussed in the application, the DICOM standard

was developed to standardize communication of medical images in electronic form, including operation of an interface used to transfer data in and out of a conforming device. The DICOM standard enables medical imaging devices to generate image files which can interface with other devices on a DICOM conforming network. A DICOM conforming image file can include demographic information and information regarding the image (such as entered by a health professional or another operator), in addition to the image.

However, the DICOM standard, contrary to the understanding expressed in the Office Action, does not provide specifically for the inclusion of quantitative data such as might be generated by some medical diagnostic devices, in addition to the scanned image. An example of such quantitative data is bone mineral density values or quantitative morphometry, generated by a bone densitometer. A physician typically considers such quantitative data along with the scanned image, to assess the patient's condition. The above-mentioned DICOM standard does not address the communication of both image and quantitative data.

Applicants devised techniques which can adapt the DICOM standard for handling of both image and quantitative data.

For example, independent claim 1 is directed to a method of generating medical information including quantitative and

image data. The method includes performing an image acquisition of at least a portion of a patient to be examined, generating image data based on the performed acquisition, generating quantitative data based on the performed acquisition, and constructing a DICOM compatible file. The image data is provided in an image data field of the DICOM compatible file and the quantitative data is provided in a field of the DICOM compatible file other than the image data field.

Neither Mortimore nor Finger discloses or suggests such a feature, wherein the image data is provided in an image data field of the DICOM compatible file and the quantitative data is provided in a field of the DICOM compatible file other than the image data field, as provided by the claimed invention.

Mortimore, as understood by the Applicant, is directed to a computer based multimedia medical database management system and user interface.

Mortimore discloses at column 3, lines 51-52 that a CT imaging device may generate image data in a suitable file structure such as DICOM v3.0. Mortimore discloses at column 5, lines 25-29 that digital image data such as from a CT digital device or another data source may be formatted into a DICOM v3.0 file containing unique identifiers for each data object.

However, as noted above, disclosure of use of a DICOM compatible file structure does not anticipate or render obvious the claimed invention of this application, since the DICOM standard does not provide specifically for the inclusion of quantitative data.

Mortimore states at column 4, lines 38-55 as follows:

One example of a scheme for generating and assigning a universally unique identifier is described in relation to the DICOM v3.0 file format. Each unique identifier is composed of a "root" and a "suffix." In an example presented in Annex B to DICOM--Part 5: Data Structures and Encoding (NEMA Standards Publication No. PS 3.5-1993), a unique identifier of 1.2.840.xxxxx.3.152.235.2.12.187636473 is presented. The root is "1.2.840.xxxxx," while the remaining portion is the suffix. Each field is suitably separated by a period. The first digit of the root is "1", which signifies the International Standards Organization (ISO), and the second digit of the root is "2", which signifies an ANSI member body. The next three digits provide a country code of a specific ANSI member body, with the "840" corresponding to the United States. Next, five more digits, represented by "xxxxx", identify a specific organization registered with ANSI. In this manner, each organization registered with ANSI has a unique root.

Thus, Mortimore discloses the uses of a certain mnemonic for formatting an identifier linked to certain data objects associated with image or text. Reference to the term "field" in Mortimore, column 4, lines 38-55 (repeated above) corresponds to fields in the identifier, and not to fields of a file.

Accordingly, while Mortimore, as understood by the Applicant, is not understood to teach or suggest a method of generating medical information including quantitative and image data, wherein the image data is provided in an image data field of the DICOM compatible file and the quantitative

data is provided in a field of the DICOM compatible file other than the image data field, as provided by the claimed invention of amended claim 1.

Finger, as understood by Applicants, is directed to processing of ultrasound data.

Finger discloses at column 22, lines 47-50 that the image data can be compressed based on a full screen compression scheme such as the DICOM (Packbits) compression scheme. However, as noted above, disclosure of a DICOM compatible file structure does not anticipate or render obvious the claimed invention of this application, since the DICOM standard does not provide specifically for the inclusion of quantitative data.

Applicants find no teaching or suggestion in Finger, however, of a method of generating medical information including quantitative and image data, wherein image data is provided in an image data field of the DICOM compatible file and quantitative data is provided in a field of the DICOM compatible file other than the image data field, as provided by the claimed invention of amended claim 1.

Accordingly, Applicants submit that independent claim 1 is patentably distinct from the cited art. Dependent claims 2-17 are believed to be patentably distinct from the cited art, for at least similar reasons.

In view of the claim amendments and remarks hereinabove, Applicants submit that the application is now in condition for allowance. Accordingly, Applicants earnestly solicit the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,


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